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A marked-up version of prior pending paragraphs showing the changes made is attached as Exhibit B.

IN THE CLAIMS:

Please cancel 11 and 14 without prejudice and add the following new claims 21 and 22:

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Cont
~~--21. A method for processing a seismic 3-D measurement data set comprising a multitude of traces, each trace having a sequence of data points provided with amplitude values or acoustic impedances, which comprises the steps of:~~

~~(a) selecting a reference section at a predetermined location and depth which comprises neighboring trace portions of several seismic traces;~~

~~(b) determining the similarity between the selected reference section and local sections of seismic data from the measurement data set and allocating a similarity value based on the determined similarity to each data point; and~~

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(c) creating a volume of data corresponding with the measurement data set using the similarity value which has been determined and allocated to each data point as the attribute.

B9 sue C
Cond.

22. The method according to claim 13 wherein the method comprises before the step of determining the similarity between the reference section and local section, the step of searching for specific dip and dip direction for the reference section and each local section which results in the largest similarity of the trace portions from the reference section and each local section, whereby the search comprises an iterative determination of the similarity of neighboring trace portions that are shifted with respect to each other according to dip and dip direction.--

Please substitute the following amended claims 12-13 and 15-20 for pending claims 12-13 and 15-20:

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Am4 C1

12. (Amended) The method according to claim 21, wherein the size of the reference section and the local sections comprises 3 to 7 data points per dimensional direction.

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C1

13. (Amended) The method according to claim 21, wherein the local sections and/or the reference section are deformed according to a local preferred dip and preferred dip direction.

B11
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15. (Amended) The method according to claim 13, wherein during the selection of the reference section, a search is carried out for the dip and dip direction exhibiting the largest similarity among the trace portions belonging to the reference section, whereby afterwards in the determination of the similarity between the reference section and local sections, the specific relative dip between the reference section and the local section conforming to the largest similarity is then determined in each case.

16. (Amended) The method according to claim 13, wherein in addition to the data volume with the similarity values, a data volume with the determined dip values and a further data volume with the determined values of the dip direction are formed.

17. (Amended) The method according to claim 21, wherein the reference section is supplied by a well with ascertained lithological information.

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C1

18. (Amended) The method according to claim 17, wherein the reference section is generated synthetically by convolving down a pre-selected 3-dimensional acoustic impedance distribution from the relevant well log with a representative wavelet.

B11
Contd.

19. (Amended) The method according to claim 17, wherein the reference section is formed synthetically with the help of seismic 3-D modeling techniques from a geological model determined by lithological, petrophysical and/or structural parameters.

20. (Amended) The method according to claim 21, wherein several reference sections, for example locations of drilled holes, are compared with the local sections, and thus several similarity values are calculated for each data point.

A marked-up version of prior pending claims 12-13 and 15-20 showing the changes made is attached hereto as Exhibit C.

REMARKS

The claims are 12-13 and 15-22. Claims 11 and 14 have been rewritten as new claims 21 and 22 to improve their form. Accordingly, claims 11 and 14 have been canceled, and claims 12,